

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/056998 A1

(51) International Patent Classification⁷: C12N 15/52, 9/00, 9/02, 9/10, C07K 14/21, C12Q 1/68, C12N 15/63, 15/53, 15/54, C12P 17/12, C07D 471/22, 471/18, A61K 31/4995, A61P 35/00, 31/04

(21) International Application Number:
PCT/GB2003/005563

(22) International Filing Date:
19 December 2003 (19.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0229793.5 20 December 2002 (20.12.2002) GB

(71) Applicant (for all designated States except US): PHARMA MAR, S.A. [ES/ES]; Calle de la Calera, 3, Polígono Industrial de Tres Cantos, Tres Cantos, E-28760 Madrid (ES).

(71) Applicant (for SD only): RUFFLES, Graham, Keith [GB/GB]; 66-68 Hills Road, Cambridgeshire CB2 1LA (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): VELASCO IGLESIAS, Ana [ES/ES]; Polígono Industrial La Mina, Avda. de los Reyes, 1, Colmenar Viejo, E-28770 Madrid (ES). DE LA CALLE, Fernando [ES/ES]; Pharma Mar, S.A., Calle de la Calera, 3, Polígono Industrial de Tres Cantos, Tres Cantos, E-28760 Madrid (ES). APARICIO PÉREZ, Tomás [ES/ES]; Polígono Industrial La Mina, Avda. de los Reyes, 1, Colmenar Viejo, E-28770 Madrid (ES). SCHLEISSNER SÁNCHEZ, Carmen [ES/ES]; Polígono Industrial La Mina, Avda. de los Reyes, 1, Colmenar Viejo, E-28770 Madrid (ES). ACEBO PÁIS, Paloma

[ES/ES]; Polígono Industrial La Mina, Avda. de los Reyes, 1, Colmenar Viejo, E-28770 Madrid (ES). RODRIGUEZ RAMOS, Pilar [ES/ES]; Polígono Industrial La Mina, Avda. de los Reyes, 1, Colmenar Viejo, E-28770 Madrid (ES). REYES BENITEZ, Fernando [ES/ES]; Polígono Industrial La Mina, Avda. de los Reyes, 1, Colmenar Viejo, E-28770 Madrid (ES). HENRIQUEZ PELAEZ, Rubén [ES/ES]; Polígono Industrial La Mina, Avda. de los Reyes, 1, Colmenar Viejo, E-28770 Madrid (ES).

(74) Agent: RUFFLES, Graham, Keith; Marks & Clerk, 66-68 Hills Road, Cambridgeshire CB2 1LA (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/056998 A1

(54) Title: THE GENE CLUSTER INVOLVED IN SAFRACIN BIOSYNTHESIS AND ITS USES FOR GENETIC ENGINEERING

(57) Abstract: A gene cluster has open reading frames which encode polypeptides sufficient to direct the synthesis of a safracin molecule.